Lot 13—Fields 1, 3-5, 8, 14-16, 19, 20-22, 24

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 13 Total Acres: 295 Field Number(s): 1,3-5,8, 4-16,19, 20-22, 24 Acres: 102 Date: 9/18/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	Heights (feet) Crown/Usable	Condition (Good, Fair, Poor)
Red Pine	P-13	Heavy	19	Even	52	58	Fair
Scotch Pine	P-15	Heavy	14	Even	52	61	Fair
White Pine	P-14	Heavy	17	Even	52	59	Fair
Austrian Pine	P-13	Heavy	14	Even	52	61	Fair

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

These fields represent mature Conifer (Pinus spp.) Plantations in various stages of hardwood succession. The designation of "Fair," relative to condition, is given due to the large percentage of trees under a DBH of 12 inches.

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems These fields contain two northwesterly flowing intermittent streams located in Field Number 7 and Field Numbers 3 and 19. These fields also contain six man-made ponds located in Field Numbers 16, 20 and 22.

Fire Lane Status

The Fire Break in Field Numbers 21 and 22 is approximately 10 feet wide, is in need of widening and pruning and is currently being used as an All Terrain Vehicle trail. This use is strictly prohibited on County Forest property and violators will be prosecuted. The Fire Break between Field Numbers 15 and 16 is approximately 15 feet wide and is in need of widening and pruning. Field Number 2 contains a power company right-of-way, approximately 60 feet wide, that is in good condition and serves as a Fire Break.

^{**} Represents the most recent growth rings per inch from a core sample

Lot 13—Fields 1, 3-5, 8, 14-16, 19, 20-22, 24

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium density and is characterized by various species of Pines (Pinus spp.) with light intrusions of Black Cherry (Prunus serotina).

Subcanopy

The subcanopy is of light density and represented primarily by Sugar Maple (Acer saccharum) and Black Cherry (Prunus serotina).

Shrub Layer

The shrub layer is of light density and includes Brambles (Rubus spp.), Tartarian Honeysuckle (Lonicera tartarica), Multiflora Rose (Rosa multiflora) and Highbush Blueberry (Vaccinium corymbosum).

Herbaceous Layer

The herbaceous layer is of light density and is dominated by a variety of ferns such as Sensitive fern (Onoclea sensibilis), Bracken fern (Pteridium aquilinum), Evergreen Woodfern (Dryopteris intermedia), Crested fern (Dryopteris cristata), Royal fern (Osmunda regalis), Cinnamon fern (Osmunda cinnamomea), Lady fern (Athyrium Filix-femina) and New York fern (Thelypteris noveboracensis).

Successional Status

These fields represent mature Pine Plantations (Pinus sp.) in the early - mid stages of hardwood succession

Botanical Concerns - includes both invasive and protected species

<u>Invasive:</u> Tartarian Honeysuckle (Lonicera tartarica) and Multiflora Rose (Rosa multiflora) <u>Protected:</u> All ferns listed under "Herbaceous Layer" except Bracken fern (Pteridium aquilinum) and Sensitive fern (Onoclea sensibilis).

Lot 13—Fields 6, 9 and 18

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 13 Total Acres: 295 Field Number(s): 6, 9, 18 Acres: 28 Date: 9/18/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	Heights (feet) Crown/Usable	Condition (Good, Fair, Poor)
White Spruce	S/P	Medium	24	Even	51	54	Poor
White Pine	12-20	Light	17	Even	51	57	Fair
Scotch Pine	12-18	Light	14	Even	51	55	Poor

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

These fields represent White Spruce (Picea glauca) Plantations mixed with various Pines (Pinus spp.).

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems These fields contain a southwesterly flowing intermittent stream between Field Numbers 9 and 18. Field Number 9 contains two small man-made ponds.

Fire Lane Status

None

^{**} Represents the most recent growth rings per inch from a core sample

Lot 13—Fields 6, 9 and 18

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium density and is characterized by White Spruce (Picea glauca), White Pine (Pinus strobus), Scotch Pine (Pinus sylvestris) and Austrian Pine (Pinus nigra) along with light intrusions of mixed hardwoods.

Subcanopy

The subcanopy is of medium density and is represented primarily by Sugar Maple (Acer saccharum), Black Cherry (Prunus serotina) and White Ash (Fraxinus americana). The subcanopy was not present in Field Number 6.

Shrub Layer

The shrub layer is of light density and includes Brambles (Rubus spp.), Tartarian Honeysuckle (Lonicera tartarica), Alternate-Leaf Dogwood (Cornus alternifolia) and Multiflora Rose (Rosa multiflora). The shrub layer is not present in Field Number 6.

Herbaceous Layer

The herbaceous layer is of light density and is dominated by a variety of ferns such as Sensitive fern (Onoclea sensibilis), New York fern (Thelypteris noveboracensis), Lady fern (Athyrium filix-femina) and Evergreen Woodfern (Dryopteris intermedia). The herbaceous layer was not present in Field Number 6.

Successional Status

These fields represent White Spruce (Picea glauca) dominated Conifer Plantations in the early - mid stages of hardwood succession. Due to the dense planting of the White Spruce (Picea glauca) in Field Number 6, there is minimal hardwood intrusion.

Botanical Concerns - includes both invasive and protected species

<u>Invasive:</u> Tartarian Honeysuckle (Lonicera tartarica) and Multiflora Rose (Rosa multiflora) <u>Protected:</u> All ferns listed under "Herbaceous Layer" except Sensitive fern (Onoclea sensibilis).

Lot 13—Fields 7, 10

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 13 Total Acres: 295 Field Number(s): 7, 10 Acres: 15 Date: 9/18/03

Reported By: Earth Spirit Educational Services, Inc.

	DBH*	Density (Heavy,	Growth	Age Class		Heights (feet)	Condition
Principal Species	(inches)	Medium, Light)	Rate**	(Even/Mult.)	Age	Crown/Usable	(Good, Fair, Poor)
Sugar Maple	P-26	Heavy	12	Multiple		78 21	Fair

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

These fields, originally established as wildlife areas, include a generally young - middle aged Hardwood Forest (Field Number 7) dominated by Sugar Maple (Acer saccharum) as well as a Wet Meadow transitioning into a young, wet Secondary Hardwood Forest Community.

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems These fields contain a westerly flowing intermittent stream.

Fire Lane Status

None

^{**} Represents the most recent growth rings per inch from a core sample

Lot 13—Fields 7, 10

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy in Field Number 7 is of heavy density and is dominated by Sugar Maple (Acer saccharum) while the canopy in Field Number 10 is of light density and is represented by Red Maple (Acer rubrum).

Subcanopy

The subcanopy in Field Number 7 is of light density and is dominated by Sugar Maple (Acer saccharum). The subcanopy in Field Number 10 is of light density and is represented by Slippery Elm (Ulmus rubra) and Black Willow (Salix nigra).

Shrub Layer

The shrub layer is not present in Field Number 7. The shrub layer in Field Number 10 is of medium density and includes Northern Arrowwood (Viburnum recognitum) and Dogwoods (Cornus spp.).

Herbaceous Layer

The herbaceous layer in Field Number 7 is of light density and includes Evergreen Woodfern (Dryopteris intermedia). The herbaceous layer in Field Number 10 is of medium density and includes a variety of ferns such as Cinnamon fern (Osmunda cinnamomea), Sensitive fern (Onoclea sensibilis) and New York fern (Thelypteris noveboracensis).

Successional Status

Field Number 7 is a middle-aged monoculture of Sugar Maple (Acer saccharum) that will eventually evolve into a Maple dominated Climax Forest. Field Number 10 represents a young, wet Secondary Hardwood Forest that will continue to evolve into a mesic Hardwood Forest.

Botanical Concerns - includes both invasive and protected species

Invasive: None

<u>Protected:</u> All ferns listed under "Herbaceous Layer" except Sensitive fern (Onoclea sensibilis). White Baneberry (Actaea pachypoda), found in Field Number 7, is also protected.

Lot 13—Fields 11, 12

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 13 Total Acres: 295 Field Number(s): 11,12 Acres: 81 Date: 9/18/03

Reported By: Earth Spirit Educational Services, Inc.

Principal Species	DBH* (inches)	Density (Heavy, Medium, Light)	Growth Rate**	Age Class (Even/Mult.)	Age	_	(feet) 'Usable	Condition (Good, Fair, Poor)
Sugar Maple	14-36	Heavy	20	Multiple		86	30	Fair
Black Cherry	14-27	Light	16	Multiple		98	42	Good
White Ash	12-24	Light	9	Multiple		85	38	Good
American Beech	12-30	Light	17	Multiple		93	31	Fair

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

These fields represent mature, mixed Hardwood Forests dominated by Sugar Maple (Acer saccharum) along with other subdominant hardwood species.

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems Field Number 12 contains a northwesterly flowing intermittent stream.

Fire Lane Status

The Fire Break in these fields is approximately 16 feet wide and is in need of moderate widening and pruning.

^{**} Represents the most recent growth rings per inch from a core sample

Lot 13—Fields 11, 12

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of heavy density and is characterized by Sugar Maple (Acer saccharum), Black Cherry (Prunus serotina), White Ash (Fraxinus americana) and American Beech (Fagus grandifolia).

Subcanopy

The subcanopy is of medium density and is represented by Sugar Maple (Acer saccharum), American Beech (Fagus grandifolia) and Eastern Hemlock (Tsuga canadensis).

Shrub Layer

The shrub layer is of light density and includes a variety of Brambles (Rubus spp.).

Herbaceous Layer

The herbaceous layer is of medium density and includes Evergreen Woodfern (Dryopteris intermedia), Silvery Spleenwort (Athyrium thelypteroides) and Hayscented fern (Dennstaedtia punctilobula).

Successional Status

These fields represent mature, mixed Hardwood Forests evolving into a Maple/Beech Climax Forest.

Botanical Concerns - includes both invasive and protected species

Invasive: None

<u>Protected:</u> All ferns listed under "Herbaceous Layer" except Hayscented fern (Dennstaedtia punctilobula).

Lot 13—Fields 13, 17, 23 and 25

FIELD WORKSHEET #1 GENERAL FORESTRY INFORMATION

Lot # 13 Total Acres: 295 Field Number(s): 13, 17, 23, 25 Acres: 10 Date: 9/17/03

Reported By: Earth Spirit Educational Services, Inc.

	DBH*	Density (Heavy,	Growth	Age Class		Heights (feet)	Condition
Principal Species	(inches)	Medium, Light)	Rate**	(Even/Mult.)	Age	Crown/Usable	(Good, Fair, Poor)
Larch	12-16	Heavy	20	Even	52	64	Good

^{* &}quot;S" refers to saplings, "P" refers to pole size dimensions, "SL" refers to saw log dimensions

Comments

These fields represent mature Larch (Larix spp.) Plantations along with Secondary Hardwoods in all forest levels. All fields contain significant debris build-up while Field Number 25 also contains significant blow-downs.

Aquatic Systems – includes both lentic (standing water) and lotic (flowing water) systems Field Number 25 contains one man-made pond.

Fire Lane Status

The Fire Breaks in these fields exist as an edge buffer along Sharp Rd. and Sibley Rd. and are in need of general clearing.

^{**} Represents the most recent growth rings per inch from a core sample

Lot 13—Fields 13, 17, 23 and 25

FIELD WORKSHEET #2 ECOLOGICAL ANALYSIS

Ecological Overview

Forest Physiognomy (outer appearance)

Canopy

The canopy is of medium density and is characterized by Larch (Larix spp.) along with light intrusions of Black Cherry (Prunus serotina) and Sugar Maple (Acer saccharum).

Subcanopy

The subcanopy is of medium density and is represented by Secondary Hardwood species such as Black Cherry (Prunus serotina), Red Maple (Acer rubrum) and White Ash (Fraxinus americana).

Shrub Layer

The shrub layer is of medium density and includes a variety of Brambles (Rubus spp.), Poison Ivy (Rhus radicans) and Tartarian Honeysuckle (Lonicera tartarica).

Herbaceous Layer

The herbaceous layer is of medium density and is dominated by a variety of ferns such as Evergreen Woodfern (Dryopteris intermedia), Hayscented fern (Dennstaedtia punctilobula), New York fern (Thelypteris noveboracensis), Sensitive fern (Onoclea sensibilis), Interrupted fern (Osmunda claytoniana), Royal fern (Osmunda regalis) and Cinnamon fern (Osmunda cinnamomea).

Successional Status

These fields represent mature Larch (Larix spp.) Plantations in the mid stages of Secondary Hardwood succession.

Botanical Concerns - includes both invasive and protected species

<u>Invasive:</u> Tartarian Honeysuckle (Lonicera tartarica)

<u>Protected:</u> All ferns listed under "Herbaceous Layer" except Hayscented fern (Dennstaedtia punctilobula) and Sensitive fern (Onoclea sensibilis).

Lot 13 Summary and Recommendations

FIELD WORKSHEET #3 WILDLIFE SUMMARY

Lot # 13 offers an excellent variety of habitats for diverse populations of wildlife species. Field Numbers 7 and 10 represent a unique Sugar Maple (Acer saccharum) monoculture and a transitioning Wet Meadow while Field Numbers 11 and 12 represent mature Hardwood Forests. The remaining 21 fields represent mixed Conifer Plantations in various stages of hardwood succession.

During a period of one and one half days, staff ecologists recorded a variety of wildlife observations focused upon actual sightings and other wildlife "signs". The following list represents a brief overview of those encounters focused upon Mammals, Birds and Reptiles/Amphibians.

Mammals

Whitetail Deer (Odocoileus virginianus)
Gray Squirrel (Sciurus carolinensis)
Red Squirrel (Tamiasciurus hudsonicus)
Striped Skunk (Mephitis mephitis)
Red Fox (Vulpes fulva)
Raccoon (Procyon lotor)
Eastern Chipmunk (Tamias striatus)

Birds

Wild Turkey (Meleagris gallopavo)

Pileated Woodpecker (Dryocopus pileatus)

Redtail Hawk (Buteo jamaicensis)

White Breasted Nuthatch (Sitta carolinensis)

American Crow (Corvus brachyrhynchos)

Green Heron (Butorides virescens)

Black-capped Chickadee (Parus atricapillus)

Dark-eyed Junco (Junco hyemalis)

Blue Jay (Cyanocitta cristata)

Downy Woodpecker (Picoides pubescens)

American Robin (Turdus migratorius)

Hairy Woodpecker (Picoides villosus)

Reptiles/Amphibians

Spring Peeper (Hyla crucifer) Pickerel Frog (Rana palustris)
Green Frog (Rana clamitans melanota) American Toad (Bufo americanus)

FIELD WORKSHEET #4 RECOMMENDATIONS

The following recommendations for Lot #13 of the Erie County Forestry Management Plan are based upon field data collected by Earth Spirit Educational Services, Inc. in the areas of Forest Ecology, Wildlife Biology and general Ecology.

Field Numbers 1, 3-5, 8, 14-16, 19, 20-22, and 24

<u>Description</u> – These fields represent mature Conifer Plantations in various stages of hardwood succession and include Scotch Pine (Pinus sylvestris), White Pine (Pinus strobus), Red Pine (Pinus resinosa) and Austrian Pine (Pinus nigra). Three man-made ponds and a cattail marsh, constructed initially for wildlife habitat, also exist in these fields and continue to provide important habitat diversity for wildlife populations.

Field Numbers 6, 9 and 18

<u>Description</u> – These fields represent White Spruce (Picea glauca) Plantations along with mixed Pine (Pinus spp.) species. Field Number 9 contains two small man-made ponds constructed initially for wildlife habitat.

Field Numbers 13, 17, 23 and 25

<u>Description</u> – These fields represent mature Larch (Larix spp.) Plantations that serve as a buffer zone and windbreak for the southeastern boundaries of the property.

Field Numbers 11 and 12

<u>Description</u> – These fields represent mature, mixed Hardwood Forests dominated by Sugar Maple (Acer saccharum) and other subdominant hardwoods.

Field Numbers 7 and 10

<u>Description</u> – These fields, originally established as wildlife areas, include a young - middle aged Hardwood Forest (Field Number 7) dominated by Sugar Maple (Acer saccharum) as well as a Wet Meadow transitioning into a young, wet Secondary Hardwood Forest Community (Field Number 10).

Recommendations:

Note: Due to the unique character of Lot #13, one recommendation will be submitted for all Field Numbers 1-25.

Based upon the above field descriptions and ongoing ecological surveys, it has been determined that this Lot possesses the most significant habitat diversity of the thirteen Erie County Forest Lands analyzed in this project. As a result, this area should be protected and preserved for the following purposes:

<u>Wildlife Diversity</u> – Wildlife habitats are provided through mature Hardwood Forests, young - middle aged Secondary Hardwood Forests, Pioneer Forests, Field/Shrub Communities, varied species of Conifer Plantations, diverse Wetlands such as Ponds, Marshes and Wet Meadows as well as intermittent Streams situated in deep ravines.

<u>Passive Recreation</u> – Recreational opportunities may include hiking, backpacking, cross-country skiing, snowshoeing, bird watching, jogging, nature photography and wildlife viewing. In addition, this Lot also provides an excellent opportunity to develop minimum impact campsites (lean-to construction) in a variety of both Wetland and Hardwood Forest environments.

<u>Environmental Education</u> – This property offers an excellent opportunity as a secondary field site for programs developed at The Woodlands Environmental Educational Center for schools, community groups and the general public. These educational programs, focused upon topics in the areas of Field Ecology, Environmental Analysis and Conservation Biology (Forest and Wildlife Management), have the ability to enhance awareness and accessibility to this extremely unique Forest Land of Erie County.

Lot 13 Soils, Waterways and Topography

Soils

The eastern upland area of Lot 13 contains the somewhat poorly drained, potentially highly erodible Volusia Silt Loam (VoB), with 3-8% slopes and moderate permeability, the well drained, highly erodible Valois Gravelly Silt Loam (VaD), with 15-25% slopes and moderate to rapid permeability, the moderately well drained, potentially highly erodible and highly erodible Mardin Silt Loam (McB and McC), with 3-15% slopes and moderate permeability, the very poorly drained Palms Muck (Pa), with moderately rapid permeability in the organic layer, and moderate permeability in the underlying loamy material, and the moderately well drained, potentially highly erodible and highly erodible Williamson Silt Loam (WeB and WeC), with 3-15% slopes and slow to very slow permeability. These soils may contribute excess sediment to streams if disturbed during wet seasons; activities should be conducted after soil freeze to minimize soil loss. The downslope soils on the lot include the well drained, highly erodible Hudson Silty Clay Loam (HvD and HvE), with 15-40% slopes and moderate to slow permeability, the moderately well drained, highly erodible Langford Channery Silt Loam, Silty Substratum (LgC and LgD), with 8-25% slopes and moderate permeability, the somewhat poorly drained, potentially highly erodible Raynham Silt Loam (RaB), with 3-8% slopes and moderately slow permeability, the somewhat poorly drained, potentially highly erodible Rhinebeck Silt Loam (RgB), with 3-8% slopes and very slow permeability and the somewhat poorly drained, severely eroded Rhinebeck Silty Clay Loam (RhC3), with 8-15% slopes and very slow permeability. These soils are potentially highly unstable and proper management should include maintaining forest buffers along drainage channels, swales and streams to minimize soil loss.

Waterways and Topography

Several small tributaries to Eighteenmile Creek originate on Lot 13, and the eastern upland portion of the lot is sprinkled with small ponds and wetlands. The streams are identified as Class A, protected for drinking water supplies. Water quality in Eighteenmile Creek is threatened by sediment, pesticides, nutrients, salts, thermal changes and pathogens, from streambank erosion, agriculture, construction, urban runoff, resource extraction and on-site waste treatment. Fish habitat is primarily threatened by unstable soils, and buffers should be maintained along all streams and drainage channels to protect the water resource. Lot 13 slopes from Sharp Street on the east over 200 feet to Springville Boston Road.

Lot 13 Forest Stewardship Recommendations

Please reference attached map.

Stand A (Old Fields 13, 17, 23, 25)

MEDIUM PRIORITY

These are plantations of larch. Average diameter is approximately 14", with maximums near 18". Stand density is high, with basal area 150-200 sqft/ac. Some windthrow is evident. The understory contains saplings of black cherry, sugar maple and white ash with scattered poles of red maple and black cherry. The larch stand west of Sharp St. should be scheduled for conversion to hardwoods with patch cutting with minimum edges. Selection harvesting would subject the residual stand to considerable windthrow. The larch areas east of Sharp St. should be left to gradually convert to hardwoods due to their location near roads or around ponds.

Stand B (Old Fields 1, 3-5, 8, 11, 14-16, 19, 20-22, 24)

MEDIUM PRIORITY

These are plantations of various conifers, including red pine, white pine, Scotch pine, Austrian pine and some Norway spruce. The old Scotch pines are declining, with many dead or with flat-topped crowns or with crown dieback. The understory is heavily developed with black cherry and white ash saplings and poles. The Scotch pine diameters are mostly under 12". The Austrian pines have poor form, average 10-12" diameter with very scattered black cherry poles. Red pine areas have average diameters around 9", live crown ratios 15-20% (very short), basal area around 150 sqft/ac and an understory of white ash seedlings. There are few hardwood saplings in the red and Austrian pine areas and windthrow is occurring in the red pines. No evidence of prior stand management was seen. Recommend conversion to hardwoods for areas west of Sharp St. However, the Scotch pine areas should be left to naturally convert since the understory is quite developed and little merchantable wood could be harvested. Since there are very few hardwood seed trees scattered throughout, no return for their harvest would be necessary. The red and Austrian pine areas west of Sharp St. could be patch cut to speed and control conversion to more valuable hardwoods. For these areas, no-cut buffers of 1-2 tree lengths should be left around the ponds and along property boundaries. The entire area east of Sharp St. with the 5 ponds should be left to convert naturally since little space would be left after allowing buffers. Check regeneration areas 5 years after harvesting.

Stand C (Old Fields 2, 12)

HIGH PRIORITY

This stand has uneven-aged native hardwoods including black cherry, sugar maple, hemlock, basswood, red maple and white ash. Dominant trees are large sawtimber, with diameters up to 36". The northern-most section straddling the powerline is dominated by beech, with fewer hemlock, maples, ash, aspen, cherry and some yellow birch. The stand density is moderately low, the beech are largely culls and there are many wild grapevines. A Class A protected stream runs along the southern boundary and crosses into County land east of the powerline and just before it crosses Springville-Boston Rd. The powerline is periodically maintained and contains approximately 3 acres of nonforest land. This stand should be scheduled for a selection cut to harvest trees across the diameter range that are mature and of poor form or value and to prepare the site for regenerating native hardwoods. Schedule harvesting within 5 years to reduce basal area by about 1/4. Recheck 15 years after harvesting.

Stand D (Old Fields 6, 9, 18)

LOW PRIORITY

These are areas of declining White spruce, Scots and white pine plantations with ingrowth of native hardwoods. Hardwood species include seedlings, saplings and small poles of white ash with some wild apples. The spruce has not been thinned, but the pines have declined substantially and most of

the Scotch pines are flat-topped. Also under the pines are honeysuckles and some planted eastern white cedar and white spruce. Spruce and Scots pine diameters average under 12" and white pine diameters are between 12 and 18". Terrain is slightly rolling and soils are moderately well-drained. Because of the low stand density and scarcity of quality merchantable trees it would be best to allow these areas to continue succession into northern hardwoods without further management activity. These areas can now be utilized as wildlife habitat, since the dense shrubs provide good cover and fruits for a variety of wildlife. A Class A protected stream flows to the west through this stand and crosses Sibley Rd. and Sharp St. Recheck stand density in 10 years.

Stand E (Old Field 7)

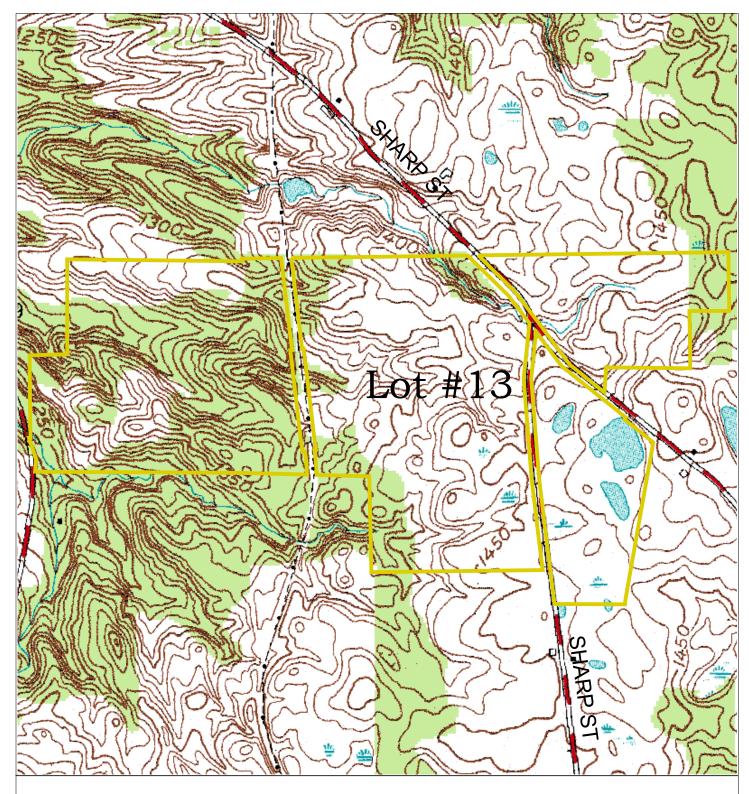
This area is an even-aged pole stand of northern hardwoods, with principal species sugar maple and minor species aspen, beech and yellow birch. It is a ravine along the Class A protected stream flowing to the northwest parallel to Sharp St. While some larger, wolf-type hardwoods exist, most maples are young, vigorous and of good form. This stand could be improved with some crop tree thinning, however its proximity to the stream would prevent heavy logging in the future. Because of its mature aspen and location, it should be left as a buffer for wildlife habitat. Adjoining this stand at the intersection of Sibley and Sharp is a disturbed clearing that has seen addition of fill deposited in the ravine of the creek. While this spot can provide valuable parking, it should be investigated to determine compliance with State regulations.

Stand F (Old Field 10)

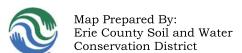
This wetland of shrubs and saplings should be left to proceed through natural succession.

Stand G MEDIUM PRIORITY

These are two small open areas comprising only a few acres. These should be maintained as open fields by periodic mowing, once every three years. Together with the powerline right-of-way, they will provide grassy, herbaceous habitat and valuable edge for wildlife.

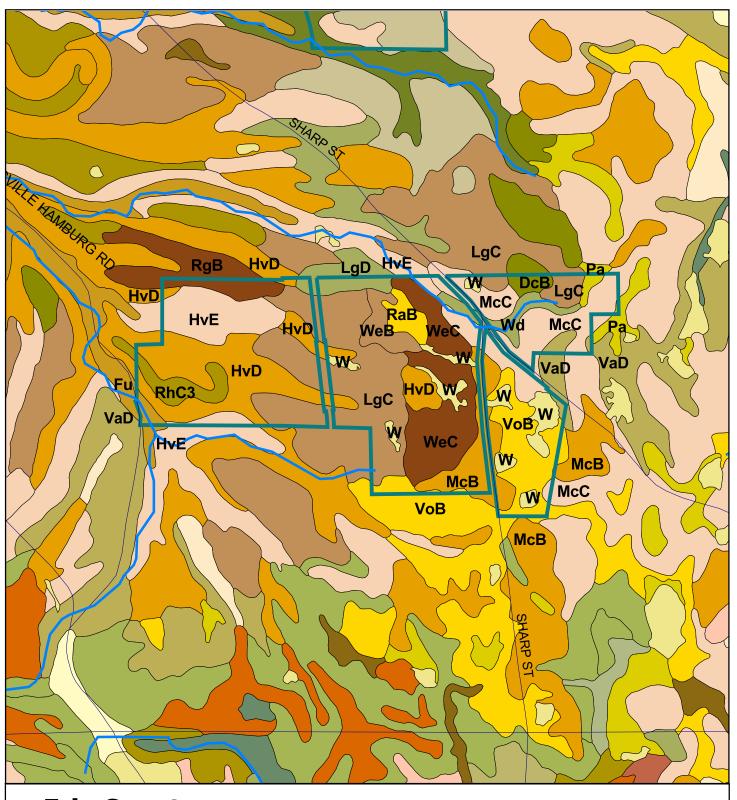


Erie County Forest Management Plan



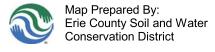
USGS TOPOGRAPHIC QUADRANGLE





Erie County Forest Management Plan

LOT #13 - SOIL TYPES



500 0 500 1000 Feet

Erie County Soil and Water Conservation District & USDA Natural Resources Conservation Service

Brief Soil Descriptions – Lot 13

For further information refer to the Soil Survey of Erie County, New York.

Symbol

Name / Description

DcB Darien Silt Loam, Silty Substratum, 3 to 8 Percent Slopes

Deep, gently sloping, somewhat poorly drained, high lime, silt loam soil formed in fine loamy glacial till and underlain by silty lake sediments. The available water capacity is moderate to high. Permeability is generally slow. PRIME FARMLAND (WHERE DRAINED), POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIW, NYS SOIL GROUP-5b, K=.37, T=3

Fu Fluvaquents and Udifluvents, Frequently Flooded

Moderately deep to deep, nearly level, well drained to poorly drained, high to low lime, variable soils formed in recent stream deposits. The available water capacity and permeability are variable. No K or T values are assigned. HYDRIC SOIL, CAPABILITY CLASS-Vw, NYS SOIL GROUP-9

HvD Hudson Silty Clay Loam, 15 to 25 Percent Slopes

Deep, moderately steep, well drained, high lime, silt loam soil formed in clayey glacial lake sediments. The available water capacity is moderate to high. Permeability is moderate to slow in the surface and subsoil layers and slow to very slow in the underlying layers. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IVe, NYS SOIL GROUP-7b, K=.49, T=3

HvE Hudson Silty Clay Loam, 25 to 40 Percent Slopes

Deep, very steep, well drained, high lime, silt loam soil formed in clayey glacial lake sediments. The available water capacity is moderate to high. Permeability is moderate to slow in the surface and subsoil layers and slow to very slow in the underlying layers. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-VIE, NYS SOIL GROUP-9b, K=.49, T=3

LgC Langford Channery Silt Loam, Silty Substratum, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained and well drained, medium lime, channery silt loam soil formed in glacial till deposits underlain by silty lake sediments. There is a firm, dense fragipan 15 to 20 inches deep which is approximately 24 inches thick. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow below the fragipan. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.20, T=3

LgD Langford Channery Silt, Silty Substratum, 15 to 25 Percent Slopes

Deep, moderately steep, moderately well drained and well-drained, medium lime, channery silt loam soil formed in glacial till deposits underlain by silty lake sediments. There is a firm, dense fragipan 15 to 20 inches deep which is approximately 24 inches thick. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow below the fragipan. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IVe, NYS SOIL GROUP-7b, K=.20, T=3

McB Mardin Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, moderately well drained and well drained, low lime; silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum. POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIW, NYS SOIL GROUP-4b, K=.32, T=3

McC Mardin Silt Loam, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained and well drained, low lime, silt loam soil formed in coarse loamy glacial till. It has a very firm fragipan at a depth of 16 to 50 inches. The available water capacity is moderate. Permeability is moderate above the fragipan and slow or very slow in the fragipan and substratum. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.32, T=3

Pa Palms Muck

Deep, nearly level, very poorly drained, medium lime, muck soil formed in organic deposits and underlain by loamy mineral soil material at depths of 16 inches or more. The available water capacity is generally high. Permeability is moderately rapid in the organic layers and moderate in the loamy material. Subject to wind erosion and subsidence when drained. No K or T values are assigned. HYDRIC SOIL, CAPABILITY CLASS-Vw, NYS SOIL GROUP-10 (6b WHEN DRAINED)

RaB Raynham Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, somewhat poorly drained, high lime silt loam soil formed in silty lake sediments. The available water capacity is moderate to high. Permeability is generally moderate in the surface soil, moderately slow in the subsoil and slow in the substratum. PRIME FARMLAND (WHERE DRAINED), POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIW, NYS SOIL GROUP-5b, K=.49, T=3

RgB Rhinebeck Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, somewhat poorly drained, medium to high lime, silt loam soil formed in clayey lake sediments. The available water capacity is moderate to high. Permeability is very slow. PRIME FARMLAND (WHERE DRAINED), POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIW, NYS SOIL GROUP-5b, K=.49, T=3

RhC3 Rhinebeck Silty Clay Loam, 8 to 15 Percent Slopes, Severely Eroded

Deep, sloping, somewhat poorly drained, medium to high lime, silt loam soil formed in clayey lake sediments. The available water capacity is moderate to high. Permeability is very slow. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IVe, NYS SOIL GROUP-7b, K=.49, T=3

VaD Valois Gravelly Silt Loam, 15 to 25 Percent Slopes

Deep, moderately steep, well drained, low lime, gravelly silt loam soil formed in coarse loamy glacial till. The available water capacity is low to moderate. Permeability is moderate to rapid. HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IVe, NYS SOIL GROUP-6b, K=.24, T=3

VoB Volusia Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, somewhat poorly drained, low lime, silt loam soil formed in fine loamy glacial till. It has a very firm fragipan at a depth of 15 to 50 inches. The available water capacity is moderate. Permeability is generally moderate above the fragipan and slow to very slow in the fragipan. POTENTIALLY HIGHLY ERODIBLE LAND, CAPABILITY CLASS-IIIW, NYS SOIL GROUP-6b, K=.37, T=3

WeB Williamson Silt Loam, 3 to 8 Percent Slopes

Deep, gently sloping, moderately well-drained, low lime, silt loam soil formed in silt and very fine sand sediments. It has a very firm fragipan at a depth of 18 to 45 inches. The available water capacity is moderate. Permeability is slow or very slow in the fragipan. PRIME FARMLAND, POTENTIALLY HIGHLY ERODIBLE LAND, CAPBILITY CLASS-IIe, NYS SOIL GROUP-4b, K=.49, T=3

WeC Williamson Silt Loam, 8 to 15 Percent Slopes

Deep, sloping, moderately well drained, low lime, silt loam soil formed in silt and very fine sand sediments. It has a very firm fragipan at a depth of 18 to 45 inches. The available water capacity is moderate. Permeability is slow or very slow in the fragipan. HIGHLY ERODIBLE LAND, CAPBILITY CLASS-IIIe, NYS SOIL GROUP-6b, K=.49, T=3

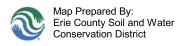


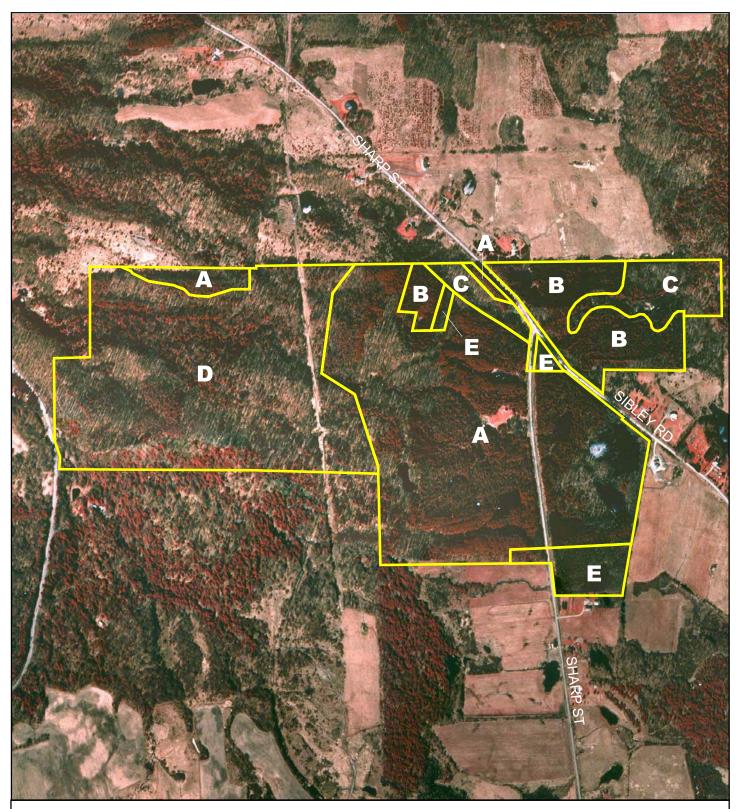
1965 CONSERVATION PLAN MAP

Erie County Forest Management Plan

LOT #13







2003 STEWARDSHIP RECOMMENDATION MAP

Erie County Forest Management Plan LOT #13



